

IN THE CLAIMS

Please cancel Claims 1-3, 9-11, 14, and 15 without prejudice or disclaimer.

Claims 1-3 (cancelled)

Claims 4 (previously amended): A header for connecting an electronic components board to a circuit board, comprising:

- a plurality of side walls joined together to form a planar frame around an area substantially the same as the area of said components board, said frame having first and second surfaces;

- said side walls made of plastic material unwarpable at assembly temperatures, and having a thickness suitable for tolerating process-induced stresses;

- a plurality of geometric features in said first surface, suitable for aligning said frame to said components board;

- selected side walls having a plurality of openings extending from said first to said second surface;

- a plurality of metal pins intended for assembly to said circuit board, each of said pins having a first end and a second end;

- said first end of each of said pins located in one of said openings, respectively, such that it extends a pre-determined length from said first surface, said length equal for each of said pins; and

- said second end of each of said pins protruding from said second surface;

- wherein each of said first ends of said pins protrudes a length of about 0.3 to 0.4 mm.

Claim 5 (previously amended): A header for connecting an electronic components board to a circuit board, comprising:

- a plurality of side walls joined together to form a planar frame around an area substantially the same as the area of said components board, said frame having first and second surfaces;

said side walls made of plastic material unwarpable at assembly temperatures, and having a thickness suitable for tolerating process-induced stresses;

a plurality of geometric features in said first surface, suitable for aligning said frame to said components board;

selected side walls having a plurality of openings extending from said first to said second surface;

a plurality of metal pins intended for assembly to said circuit board, each of said pins having a first end and a second end;

said first end of each of said pins located in one of said openings, respectively, such that it extends a pre-determined length from said first surface, said length equal for each of said pins; and

said second end of each of said pins protruding from said second surface; wherein said first ends of said pins have surfaces wettable by solder.

Claim 6 (previously amended): A header for connecting an electronic components board to a circuit board, comprising:

a plurality of side walls joined together to form a planar frame around an area substantially the same as the area of said components board, said frame having first and second surfaces;

said side walls made of plastic material unwarpable at assembly temperatures, and having a thickness suitable for tolerating process-induced stresses;

a plurality of geometric features in said first surface, suitable for aligning said frame to said components board;

selected side walls having a plurality of openings extending from said first to said second surface;

a plurality of metal pins intended for assembly to said circuit board, each of said pins having a first end and a second end;

said first end of each of said pins located in one of said openings, respectively, such that it extends a pre-determined length from said first surface, said length equal for each of said pins; and

said second end of each of said pins protruding from said second surface;

wherein said plastic material of said frame is DMS Stanyl TE25OF6.

Claim 7 (original): The header according to Claim 6 wherein a molding process is used to fabricate said frame.

Claim 8 (previously amended): A header for connecting an electronic components board to a circuit board, comprising:

- a plurality of side walls joined together to form a planar frame around an area substantially the same as the area of said components board, said frame having first and second surfaces;

- said side walls made of plastic material unwarpable at assembly temperatures, and having a thickness suitable for tolerating process-induced stresses;

- a plurality of geometric features in said first surface, suitable for aligning said frame to said components board;

- selected side walls having a plurality of openings extending from said first to said second surface;

- a plurality of metal pins intended for assembly to said circuit board, each of said pins having a first end and a second end;

- said first end of each of said pins located in one of said openings, respectively, such that it extends a pre-determined length from said first surface, said length equal for each of said pins; and

- said second end of each of said pins protruding from said second surface;

- wherein said side wall thickness is in the range from about 0.9 to 1.2 mm for side walls without pin openings, and from about 2.7 to 3.0 mm for side walls with pin openings.

Claims 9-11 (canceled)

Claim 12 (previously amended): A header for connecting an electronic components board to a circuit board, comprising:

a plurality of side walls joined together to form a planar frame around an area substantially the same as the area of said components board, said frame having first and second surfaces;

said side walls made of plastic material unwarpage at assembly temperatures, and having a thickness suitable for tolerating process-induced stresses;

a plurality of geometric features in said first surface, suitable for aligning said frame to said components board;

selected side walls having a plurality of openings extending from said first to said second surface;

a plurality of metal pins intended for assembly to said circuit board, each of said pins having a first end and a second end;

said first end of each of said pins located in one of said openings, respectively, such that it extends a pre-determined length from said first surface, said length equal for each of said pins;

said second end of each of said pins protruding from said second surface; and further having a tab attached to said side walls, said tab suitable for handling said frame by pick-and-place machines and removable after said handling.

Claim 13 (original): The header according to Claim 12 wherein said tab has an outline for identifying orientation of said header in pick-and-place machines.

Claims 14 and 15 (cancelled)